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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,269	04/22/2004	Richard B. Evans	05165.1520	6459
66060 7590 07/26/2007 BAKER & HOSTETLER, LLP FOR BOEING COMPANY WASHINGTON SQUARE, SUITE 1100 1050 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036				
			EXAMINER LEE, LAURA MICHELLE	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 07/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/829,269

Applicant(s)

EVANS, RICHARD B.

Examiner

Laura M. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/16/2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-24 is/are pending in the application.
- 4a) Of the above claim(s) 10 and 12-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/16/2007 has been entered. Currently, claims 1-10, 12-24 are pending, claims 10,12-24 are currently withdrawn, and claim 1 is amended.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Oath/Declaration***

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
It does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in **37 CFR 1.56**.

The oath as provided by the applicant denotes "as defined in 37 CFR 1.56(a)."

***Specification***

4. The disclosure is objected to because of the following informalities:

On page 7 and 8, paragraph [0029] the applicant is attempting to incorporate by reference a U.S. Patent Application Serial Number not yet assigned as of the filing of the instant application. The applicant should now amend to specification to either incorporate the serial number of the named application or remove all references the named application.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Mosiewicz et al (U.S. Publication 2005/0081692), herein referred to as Mosiewicz. Mosiewicz discloses an anvil (36; Figure 3) capable of providing support to a backed ply material

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during a cutting operation by an ultrasonic blade (54), the backed ply material capable of traveling in a first direction (I), the ultrasonic blade (54) having a curved profile tip (Figure 3), the ultrasonic blade being operable to travel along a path (R; Figure 1), the path (R) being orientated in a transverse manner relative to the first direction (I), the anvil (36) comprising: a rigid base (36) for securing the anvil to a cutting assembly (Figures 1,3,4); a surface (top surface; not numbered) capable of supporting the backed ply material, the surface being secured to the base; and a groove (50; page 2, last 4 lines of paragraph [0024])) disposed upon the surface, the groove (50) having a curved profile corresponding to the curved profile of the tip (54) (Figure 3), wherein a backing of the backed ply material is capable of being urged into the groove (50) during the cutting operation.

It is noted that although ref. 50 refers to the transverse groove or channel in the anvil (36)(page 2, last 4 lines of paragraph [0024], the reference line as shown in Figure 3 is not extended to the groove feature as mentioned. The groove (50) is actually surrounding the blade (54) in Figure 3, as additionally supported by the last nine lines of paragraph [0010].

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Downing (U.S. Patent 6,755,105) in view of Mosiewicz et al. (U.S. Publication 2005/0081692), herein referred to as Mosiewicz. Downing discloses an anvil (110) capable of providing support to a backed ply material (strip, 1) during a cutting operation by an ultrasonic blade (120), the backed ply material capable of traveling in a first direction (D), the ultrasonic blade (120) having a curved profile tip (Figure 3), the ultrasonic blade being operable to travel along a path (by means, 141), the path being orientated in a transverse manner relative to the first direction (D)(see Figure 9), the anvil (110) comprising: a rigid base for securing the anvil to a cutting assembly (Figures 1,3,4); a surface (top surface; not numbered) capable of supporting the backed ply material (1), the surface being secured to the base.

Downing does not disclose a groove disposed upon the surface, the groove having a curved profile corresponding to the curved profile of the tip, wherein a backing of the backed ply material is capable of being urged into the groove during the cutting operation. However, attention is directed to the Mosiewicz device that similarly to Downing also discloses an ultrasonic cutting tool comprising an anvil (36) between two conveying elements. Mosiewicz also discloses providing a groove (50) in the anvil to allow the blade to pass below the product to be cut. It would have been obvious to have modified the Downing anvil as taught by Mosiewicz to allow the cutting blade to pass below the product so that the entire item is severed, while not dulling the blade against the anvil. Therefore, the modified device of Downing discloses wherein a backing of the backed ply material is capable of being urged into the groove (by the combination of the

blade, 120, and the plurality of holes, 116 that are connected to the vacuum system) during the cutting operation.

9. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mosiewicz and in view of Loose (U.S. Patent 3,683,736). Mosiewicz discloses the invention as claimed, but is silent as to the material of the base, 26. However, attention is directed to the Loose device that also discloses an anvil (11) utilized for ultrasonic perforation of film and paper material. Loose discloses (column 2, lines) that the anvil is made of a dense rigid material, such as steel or other metal to support photographic paper or film. It would have been obvious to form the anvil of metal as taught by Loose to ensure that the anvil is not damaged by the cutting action as taught by Loose.

Additionally, it is noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mosiewicz in view of Weeks (U.S. Patent 6,720,058). Mosiewicz discloses the invention as claimed, except that an insert is secured to the base, the surface being disposed upon the insert. However, attention is directed to the Weeks device that also discloses a groove situated under an ultrasonic tool, a horn, where its recognized that replaceable inserts can be used for the groove portion directly under the horn so that worn groove areas can be simply replaced without replacing the entire mandrel (base)(see column

27, lines 23-28). It would have been obvious to one having ordinary skill in the art at the time of invention to have modified the grooved section (50) of Mosiewicz as taught by Weeks to be a separable and replaceable entity thereby inducing a cost and time savings if the part required replacement.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mosiewicz in view of Weeks and in further view of Thrasher (U.S. Patent 3,645,304,). The modified device of Mosiewicz, discloses the claimed invention, except that the insert comprises a high pressure laminate. However, attention is directed to the Thrasher device that discloses an apparatus for operating a rotary saw that utilizes a wear plate formed from MICARTA®, a high pressure laminate. The wear plate is maintained in contact with the side surface of a saw blade under a resilient preload force. Thrasher discloses that it is old and well known in the art to form structures out of MICARTA® for applications requiring a wear resistant material with a slidable surface. It would have been obvious to one having ordinary skill in the art at the time of invention to have formed the insert of Mosiewicz out of MICARTA® for the same purpose of forming the surface out of a wear resistant material that allows slidable movement of the cutting material. Additionally, it is noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.



12. Claims 7-8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Mosiewicz in view of Weeks, and in further view of Greve et al. (U.S. Patent 5,072,640), herein referred to as Greve.

The modified device of Mosiewicz, does not disclose that the insert comprises a polymeric material or an ultra high molecular weight polymers (i.e. DELRIN®). However, attention is directed to the Greve device that discloses a cylindrical shaped anvil located substantially across the length of the conveyor belt module being cut such that it provides support to the modules along a line directly opposite the length of the blade as the blade cuts through the modules. Greve discloses that DELRIN® is a very suitable material for the anvil. DELRIN® yields slightly under pressure to provide some stress relief to the anvil by absorbing the impact energy from the cutter, thereby prolonging the life of the cutting surface. It would have been obvious to form the insert of Mosiewicz from DELRIN® to provide protection of the cutting surface and prolong its usable life as taught by Greve. Additionally, it is noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mosiewicz in view of Weeks, Greve and in further view of Sullivan, Jr. et al. (U.S. Patent 4,438,698), herein referred to as Sullivan. The modified device of Mosiewicz, does not disclose that the insert comprises an ultra high molecular weight polymers such as DELRIN®. However, attention is directed to the Greve device that discloses a cylindrical

shaped anvil located substantially across the length of the conveyor belt module being cut such that it provides support to the modules along a line directly opposite the length of the blade as the blade cuts through the modules. Greve discloses that DELRIN® is a very suitable material for the anvil. DELRIN® yields slightly under pressure to provide some stress relief to the anvil by absorbing the impact energy from the cutter, thereby prolonging the life of the cutting surface. Greve, however, does not alternatively disclose the use of the material nylon for the anvil. However, attention is furthermore, directed to the Sullivan apparatus that discloses that is old and well known to use both nylon and DELRIN in the manufacture of anvils. It would have been obvious to one having ordinary skill in the art to have changed the DELRIN material as taught by Greve for the nylon material as taught by Sullivan, as Sullivan recognizes both materials as being old and well materials for anvil construction so as to provide protection of the cutting surface and prolong its usable life. Additionally, it is noted that it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### **Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,925,515 to Yoshimura et al.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Lee whose telephone number is (571) 272-

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8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LML   
7/16/2007

  
BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER